



PCR 6

Vertical Laminar Airflow Cabinet
with U.V. Sterilisation



Operators Manual

Issue 05 – September 2013



CE Marking certifies that this equipment conforms to the following EEC directives: -
Low Voltage Equipment – 72/23/EEC & 93/68 EEC
Electromagnetic Compatibility – 89/336/EEC



Certificate No: 0954499



CONTENTS

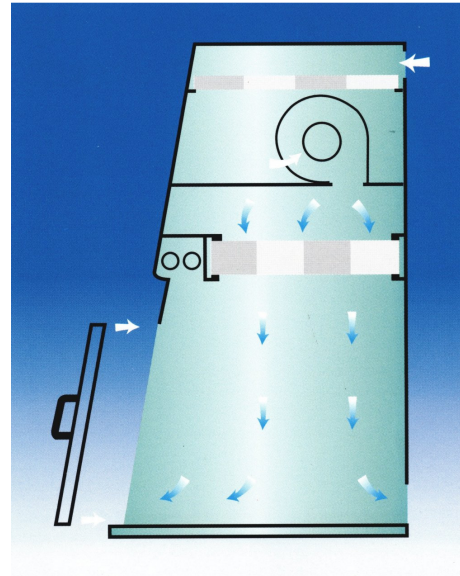
DESCRIPTION OF PCR WORKSTATION	3
FEATURES	3
HEPA FILTER	3
INSTALLATION AND OPERATION	4
CONTROLS	4
OPERATION	4
U.V. LIGHTING.....	5
UV Lamp Use Alarm.....	5
FILTERS	6
Pre-filter	6
To change pre-filters	6
Main Filter	6
AIRFLOW	7
Low Airflow Alarm	7
Airflow Monitoring	7
SERVICING.....	8
MAINTENANCE.....	9



DESCRIPTION OF PCR WORKSTATION

The PCR Cabinet is designed for the production of PCR and other sterile samples without contamination. The work area has a HEPA filtered air down flow to provide minimum of CLASS 100 Air at a laminar velocity of approx. 0.4 m/sec. The cabinet is fitted with a timer controlled U.V. light for sterilising the cabinet work-surface and equipment. A safety door is supplied to cover the work area whilst cabinet is being sterilised.

The work surface is manufactured from 316 grade stainless steel for ease of cleaning. SPILLAGES SHOULD BE REMOVED IMMEDIATELY TO PREVENT STAINING.



FEATURES

- ❑ Class 100 Clean Air
- ❑ Filter Seals Under Negative Pressure
- ❑ UV Sterilisation Of Cabinet, Instruments And Flasks
- ❑ Eliminates Contamination
- ❑ Quiet Operation At 53d(B) A
- ❑ Stainless Steel Workstation For Easier Cleaning
- ❑ Compact Design
- ❑ Unhindered Access To Work Area
- ❑ Cost Effective
- ❑ Two Speed Fan To Extend Filter Life
- ❑ Detachable Front Panel For Operator UV Protection

HEPA FILTER

The HEPA filter is 99.997% efficient against 0.3-micron particles and protected by a pre-filter. The pre-filter is accessed through the top of the cabinet.

Filter seals are maintained under a negative pressure to prevent potential leakage of unfiltered air into the work area.



INSTALLATION AND OPERATION

The unit will be supplied ready assembled and with the correctly fused mains 3 pin plug fitted. The unit can only be connected to the mains supply as follows:

Brown –	Live 220 / 240V
Blue -	Neutral
Green/Yellow -	Earth

The light and U.V. light plugs into the rear of the head unit.

IMPORTANT THIS APPLIANCE MUST BE EARTHED

CONTROLS



- (a) MAINS ON/OFF ILLUMINATED PUSH BUTTON SWITCH.
- (b) U.V. Lamp and timer control. THE CLOSING PANEL MUST BE IN PLACE BEFORE OPERATING U.V. LIGHT.
- (c) Fluorescent light switch

OPERATION

1. Switch cabinet on and allow several minutes for airflow to stabilize and purge the cabinet. The airflow LED will flash red at switch and change to green when airflow is correct for use.
2. Sterilise tray and internal surfaces with a CONTACT sterilant.
3. Close front of cabinet with panel supplied onto latches.
4. Press U.V. light switch to illuminate the UV light and operate the timer. The fan and the fluorescent light will go out and the U.V. light will illuminate. The UV operating time is user selectable. Press the UV switch once and the time selected is 5 minutes, the UV LED will flash once.



For 10 minutes, press the UV button twice, UV LED will flash twice.
For 15 minutes, press the UV button 3 times, UV LED will flash 3 times.
This process can be used to select upto 30 minutes, 6 button presses, UV LED will flash 6 times.
After the preset time the U.V. light will go off and the UV LED will flash slowly and the alarm will beep every 4 secs to inform the user the UV cycle has finished.

5. Remove the closing panel, store on top of the cabinet. The fan and fluorescent light will come back on and the cabinet is now ready for use.

NOTE: If the fluorescent light and fan do not come back on automatically, press the UV button and hold for 2 seconds, or use the ON/OFF button to reset the cabinet.

U.V. LIGHTING

The U.V. light is germicidal with a wavelength of 254 Nm. The tube is 15 watts.

U.V. light will cause burns to skin and damage eyes in a very short period of time. The U.V. light must only be used when the closing panel is in place.

The lamps will deteriorate with use. LAMPS SHOULD BE REPLACED AT 1000 hrs APPROX.

NOTE: The lamp will still emit blue light even when efficiency is greatly reduced.

UV LAMP USE ALARM

There is an alarm to alert the user to the deterioration of the UV lamp, when the UV cycle is in progress and 1000 hours has been exceeded there will be an audible beep every minute of the UV cycle.

CAUTION

DO NOT EXPOSE SKIN OR EYES TO U.V. RADIATION FROM THIS LAMP



FILTERS

PRE-FILTER

The pre-filter is mounted on the top of the cabinet and will require occasional replacement. The filter grade is EU7.

TO CHANGE PRE-FILTERS

- a) Remove both thumbscrews on the head of the cabinet.
- b) Slide top panel backwards approx 30mm to disengage rear overlap and remove top panel.
- c) Replace pre-filter. NOTE: The filter is graded and should be installed with coloured surface uppermost.
- d) Replace top panel on head unit 30mm approx to the rear. Slide panel forwards with top panel under the rear overlap.
- e) Replace thumbscrews.

MAIN FILTER

The main filter is mounted from the top of the cabinet and the seals are under negative pressure to avoid leakage into the cabinet. The filter is 99.997% efficient against 0.3 micron particles.

To replace the main filter, unlock the side latches and lift off the head unit.

It is helpful to coat the Hepa filter seals with silicone grease.

NOTE. The airflow direction arrow should be pointing downwards.



AIRFLOW

The airflow is monitored by the on board pcb. At switch on the red LED will display for a short time until the fan has run up and the correct airflow is established. The green LED will then be illuminated.

Note: The cabinet should only be used when the green LED is illuminated.

A pre-filter is fitted before the main HEPA filter to remove particulates from the airflow. This EU7 filter provides a very efficient particulate filtration of larger particles.

LOW AIRFLOW ALARM

After a period of time, the pre-filter and or HEPA filter will start to block and reduce the airflow, the fan will increase the pressure available and as the filters comes to the end of its life, the red low airflow alarm LED will start to flicker, and then flash repeatedly.

An audible alarm will also sound every 15 minutes.

At this point the pre-filter must be changed, instructions are in the Filter section

If changing the pre filter does not restore the airflow then the HEPA filter also requires changing, instructions are in the Filter section

AIRFLOW MONITORING

The airflow should be checked at 6 monthly intervals, at a distance of about 100mm from the filter face. The average airflow should be between 0,35 and 0,5 m/sec.



SERVICING

An annual service is recommended and will cover the following points:

- a) Replace pre-filter and check airflow.
- b) HEPA filter condition check by D.O.P.
- c) Inspection of electrical components, lighting, cables etc.
- d) Cleaning and checking the condition of the glazing and closing panel.



MAINTENANCE

- a) Filters. 6 month and 12 month check. See section on Filters.
- b) Airflow. Average airflow should be between 0,35 & 0,5 m/sec.
- c) Fan. The fan is centrifugal and fitted with thermal cut out. The fan requires no routine maintenance.
- d) Lighting. The fluorescent light and UV tubes are accessible from under the cabinet. To remove tubes pull back the spring loaded end caps. The starters are accessed by removing the tube and undoing the cover panel under the tube.

**THE MAINS PLUG MUST BE DISCONNECTED WHEN
REMOVING TUBES AND STARTERS.**

Replace U.V. fluorescent tube at least every 1000 hours.



Puricore International Ltd

175 Kenn Road, Clevedon, North Somerset, BS21 6LH England

UK Tel: (01275) 793000
INT Tel: +44 1275 793000

UK Fax: (01275) 341313
INT Fax: +44 1275 341313

E-mail: labcaire@puricore.com

Website: <http://www.puricore.com>

PuriCore
Pure Science. Pure Life.

/LABCAIRE
For Tomorrow's Environment 